From: (b) (6)
To: McGuigan, David
Cc: Gleason, Patricia; (b) (6) ; Howell, Amie; Garvin, Shawn
Subject: Re: Additional RCG data from (b) (6)
Date: Friday, January 24, 2014 12:16:32 PM

January 24, 2014

Mr McGuigan,

I hereby withdraw any obligations that I have may have placed on you and Ms. Gleason. Not that you were going to respond anyway. My intent now is to file a formal complaint in the near future once I have gathered additional information.

If my view of our conference call was inaccurate then you should elaborate. But that's not your style.

I investigated two NPL contaminated Superfund sites over the last several months in Millsboro, De and submitted detailed questions to EPA Coordinators in Philadelphia and received detailed written responses to each question in a prompt and professional manner and I was greatly appreciative of their efforts.

I submitted four E-Mails to you at the end of December with clear and reasonable questions and I don't receive one written response or one phone call. I submit a 5th E-Mail requesting status and reluctantly you and Ms. Gleason suggest a conference call. It was clear to me prior to the call, during the call and after the call that you had no desire in putting anything in writing that you would have to own up to at a later date.

Finally, when someone asks you to explain and investigate how the old Pinnacle Plant Permit was meeting their TDML requirements over the years through the use of questionable nutrient offset techniques and you repeatedly respond with "we will be reviewing any reissued permit to ensure that it comports to the CWA and TDML for the Inland Bays", that is an unacceptable response. How can any of us in Millsboro feel good about you reviewing the new permit when in my opinion you failed to review and protect us in the handling of the old Pinnacle Permit.

Good day Mr. McGuigan, work on those people skills.

(b) (6)

On Wed, Jan 22, 2014 at 4:00 PM, McGuigan, David <McGuigan.David@epa.gov> wrote:

> (b) (6) ,
>
> Firstly, you characterization of our call in your last email was inaccurate on many accounts. As we told you during our call, we will be reviewing any reissued permit to ensure that it

comports to the CWA and TMDL for the inland bays. As of yet, an application has not been received by DNREC. We have had discussions with DNREC and we will be consulting with them when an application is made

David

David

From: (b) (6) >
Sent: Wednesday, January 22, 2014 3:17:35 PM
To: McGuigan, David; Gleason, Patricia
Cc: (b) (6)
Subject: Additional RCG data from (b) (6)

Mr Mcguigan, Ms Gleason,
Per our discussion on January 15, 2014, I said I would get back to you when I received a response from the University of Wisconsin regarding the Reed Canary Grass (RCG) used at the Pinnacle Pickle Plant. The following response is from (b) (6) She obtained her degree studying RCG, published a 2003/2004 peer reviewed science paper about N removal and is an expert in RCG's N-removal capacity. Below is her January 21, 2014 response to my questions as well as my January 22, 2014 response back to her. It is my belief based on the data available that the results provided by Pinnacle regarding the N removal at the Pinnacle plant were unattainable, unrealistic and possibly fraudalent. I am again requesting an EPA review into the handling of this NPDES permit.
If you are unwilling to pursue this issue, please advise and I will escalate immediately.
(b) (6)

Dear (b) (6),

To extrapolate the amount of nitrogen removed by harvesting the reed canary grass, the plant tissue should have been analyzed for nitrogen concentration. Was the harvested reed canary grass analyzed for nitrogen (or phosphorous) concentration? If so, that information should be included in the report.

The nitrogen concentration in the plant tissues harvested from our high nutrient treatment was 1.5%. Using this concentration, harvesting 100 pounds of plant biomass would result in harvesting 1.5 pounds of nitrogen. In our report, we averaged the nitrogen concentration of the plant tissues sampled from our low and high nutrient treatments. In the low nutrient treatment, the nitrogen concentration was 1.0% in plant tissues, so the average nitrogen concentration in plant tissues was 1.25%. So, your estimate below (80 to 1 ratio) reflects the average nitrogen concentration that we found.

Based on the information you provided below, the nitrogen concentration in the reed canary grass harvested at the pickle plant would be over 6.6%. I

took a very quick look at the literature. From what I found, the nitrogen concentrations reported for reed canary grass were between 0.5% and 2%. (Phosphorous concentrations were 0.1 to 0.4%). Based on these concentrations, the reed canary grass harvested from the pickle plant would have resulted in the removal of ~1000 to ~3700 pounds of nitrogen.

I hope this is helpful. Please let me know if you have any questions.

(b) (6)

(b) (6)

Thank you very much for taking the time to respond to my questions.

To answer your question, I do not believe the RCG removed from the site was analyzed for Nitrogen concentration.

Based on your response, the nitrogen concentration results from the Pickle Plant appear to be over five times greater (6.6% vs 1.25%) than what your study provided. In addition, based on the pickle plant data I provided to you, only 1000 – 3700 pounds of nitrogen would have been removed from the site not the 12, 286 pounds as provided in the 2012 pickle plant results.

In addition, the 6.6% was a net number after the nitrogen fertilizer was applied in the spring. I believe in my investigation that I read that 80 to 100 pounds per year of nitrogen fertilizer was required per acre of RCG which would equate to 2800 to 3500 pounds for the 35 acre site. Now, if you include the nitrogen fertilizer back into the equation, it raises the pickle plant concentration to 8.2% to 8.5%. This makes the claimed pickle plant level of nitrogen removal 6.6 to 6.8 times greater than what your study indicated.

The nitrogen removal numbers I provided to you may have included credits for groundwater removal and for not growing corn. I am still trying to find out if these additional credits played into the high nitrogen removal numbers stated in the pickle plant results. In any case, I believe the pickle plant results to be overstated and unrealistic. Based on the above, the worst case scenario would be that the nitrogen removed from harvesting did not even cover the nitrogen fertilizer applied in the spring.

I am going back to the Philadelphia Regional EPA people and again request them to investigate the pickle plants results as well as the nutrient offset formulas, techniques, etc.

If I have misrepresented any of your January 21, 2014 response please let me know.

Thank you again for the help,

(b) (6) [redacted]

[redacted]